

What is claimed is:

1. A process for preparing a surfactant-free suspension including hydrophobic particles and at least 50.01% by weight of water,
5 which comprises
suspending hydrophobic, nanostructured particles in at least one organic solvent miscible with water and having a boiling point below 150°C, and then intensively and thoroughly mixing this concentrated organic suspension with surfactant-free water.
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2. The process as claimed in claim 1,
wherein
use is made of particles whose average diameter is from 0.01 to 100 µm.
- 15 3. The process as claimed in claim 1 or 2,
wherein
use is made of particles whose average diameter is from 0.05 to 30 µm.
4. The process as claimed in at least one of claims 1 to 3,
20 wherein
use is made of particles selected from minerals, aluminum oxide, silicates, silicas, metal oxides, mixed oxides, metal powders, pigments, and polymers.
- 25 5. The process as claimed in at least one of claims 1 to 4,
wherein
the particles have hydrophobic properties after treatment with at least one compound from the group consisting of the alkylsilanes, fluoroalkylsilanes and disilazanes.
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6. The process as claimed in at least one of claims 1 to 5,
wherein
acetone or tetrahydrofuran is used as organic solvent.
- 35 7. The process as claimed in at least one of claims 1 to 5,
wherein
an alcohol is used as organic solvent.

8. The process as claimed in claim 7,
wherein
use is made of an alcohol selected from methanol, ethanol, n-propanol,
and isopropanol.

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9. An aqueous suspension prepared by the process as claimed in at
least one of claims 1 to 8.

10. The suspension as claimed in claim 9,
which
has from 0.10 to 2.50% by weight of suspended hydrophobic particles,
based on the suspension.

11. The suspension as claimed in claim 9 or 10,
which
has from 0.10 to 49.98% by weight of alcohol, based on the suspension.

12. The suspension as claimed in claim 9,
which
has at least 60.00% by weight of water, based on the suspension.

13. The use of the suspension prepared as claimed in at least one of
claims 1 to 8 for producing detachable dirt- and water-repellant coatings on
particles.

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14. A process for producing a detachable, dirt- and water-repellant
coating on articles, where, during the coating process, hydrophobic
particles are applied to the surface of the articles and thus a surface
structure with elevations is produced on the surface of the articles, and has
dirt- and water-repellant properties,
which comprises
applying, to at least one surface, a suspension prepared as claimed in at
least one of claims 1 to 8, and then removing the suspension medium.

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15. The process as claimed in claim 14,
wherein
the application of the suspension to at least one surface of an article takes
place by dipping the article into the suspension.

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16. The process as claimed in claim 14,
wherein
the application of the suspension to at least one surface of an article takes
place by spray-application of the suspension.

17. The process as claimed in claim 16,
wherein
a spray is used to apply the suspension.

18. An article which has, on at least one surface, a water- and dirt-
repellant coating produced by a process as claimed in at least one of
claims 14 to 17.

19. A protective coating produced as claimed in any of claims 14 to 17.

20. The protective coating as claimed in claim 19,
which
can be removed from the surface of the article by impact from a liquid with
momentum greater than 12 mNs.

21. The protective coating as claimed in claim 19 or 20,
which
is used to protect articles, films or textiles from high levels of contamination
by dirt and/or water during outdoor activities, during leisure or during work.

22. The protective coating as claimed in claim 19 or 20,
which
is used to protect articles and products from contamination during transport
or in spaces used for purposes of sales or of presentations.

23. The protective coating as claimed in claim 19 or 20,
which
is used to protect technical textiles and fabrics used for textile buildings.

24. An impregnating spray which comprises a suspension as claimed in
any of claims 9 to 12.